

ABSTRACT

A thermal head printer for printing but not perforating a substantially light-insensitive thermographic material, the thermal printer comprising: a transport system having a transport direction, n thermal heads, where n is an integer, each of the thermal heads comprising an array of substantially rectangular energizable heating elements, the heating elements having a length L_n in the transport direction and a pitch P_n between adjacent heating elements, and a means for supplying electrical energy to each of the substantially rectangular energizable heating elements in at least one of the thermal heads, the transport system being capable of transporting the light-insensitive thermographic material in contact or proximity with at least one of the thermal heads, wherein at least one of the thermal heads comprises heating elements for which L_n/P_n is between 0.25 and 0.88; a first process for printing a substantially light-insensitive thermographic material with the above-described thermal head printer; a second process for printing a substantially light-insensitive thermographic material at different printing speeds with a thermal head comprising heating elements without significant variation in image tone, wherein the length of the heating elements in the transport direction of the substantially light-insensitive thermographic material decreases with decreasing printing speed; and a third process for printing a substantially light-insensitive thermographic material at different printing speeds with a different thermal head at each printing speed without significant variation in image tone, wherein each of said different thermal heads comprises heating elements with a different length in the transport direction of the substantially light-insensitive thermographic material and the length of the heating elements in the transport direction of the substantially light-insensitive thermographic material decreases with decreasing printing speed.